

Christian G. Daughton, Supervisory Physical Scientist, in EPA's National Exposure Research Laboratory

Systems Exposure Division

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Area of Expertise: Much of Daughton's work focuses on emerging contaminants (especially pharmaceuticals and personal care products - PPCPs) and on radically new ways to rapidly gauge community-wide drug consumption and human health by way of "sewage chemical information mining" (SCIM). His work has received over 6,000 citations (one paper has received over 3,000 citations) and comprises more than 40 journal articles (in over 25 different journals), more than 15 book chapters, and an edited book.

Select Publications:

Daughton CG. "Government perspective in response to: What can be done to address emerging environmental contaminants having indeterminate or subtle ecological or human impacts?" *Environmental Toxicology and Chemistry* 2016, 35(2):266-268; available: <http://dx.doi.org/10.1002/etc.3210>. [EXIT]

Daughton CG "Eco-directed sustainable prescribing: feasibility for reducing water contamination by drugs." *Science of the Total Environment* 2014, 493:392-404; available: <http://dx.doi.org/10.1016/j.scitotenv.2014.06.013> [EXIT]

Daughton CG "The Matthew Effect and widely prescribed pharmaceuticals lacking environmental monitoring: Case study of an exposure-assessment vulnerability," *Science of the Total Environment*, 2014, 466–467:315–325; available: <http://dx.doi.org/10.1016/j.scitotenv.2013.06.111> [EXIT]

Daughton CG. "Pharmaceuticals in the Environment: Sources and Their Management," in Analysis, Removal, Effects and Risk of Pharmaceuticals in the Water Cycle — Occurrence and Transformation in the Environment, 2nd Edition; Petrovic M, Barcelo D and Perez S, Eds., Elsevier; 2013, Volume 62, Chapter 2, pp 37-69; available: <http://dx.doi.org/10.1016/B978-0-444-62657-8.00002-1> [EXIT]

Daughton CG and Ruhoy IS "Lower-Dose Prescribing: Minimizing 'Side Effects' of Pharmaceuticals on Society and the Environment," *Science of the Total Environment*, 2013, 443:324-337; available: <http://dx.doi.org/10.1016/j.scitotenv.2012.10.092> [EXIT]

Daughton CG "Using biomarkers in sewage to monitor community-wide human health: Isoprostanes as conceptual prototype," *Science of the Total Environment*, **2012**, 424:16-38; available: <http://dx.doi.org/10.1016/j.scitotenv.2012.02.038> ^[EXIT]

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Education:

- Ph.D. in Ecology, Department of Environmental Toxicology, University of California, Davis, 1976
- B.A. in Biology, University of California, San Diego (Revelle College), 1971

Professional Experience:

- Branch Chief, U.S. EPA, NERL, Environmental Chemistry Branch, Las Vegas, NV, May 1991-2012
- Technical Consultant, environmental chemistry, microbiology, and toxicology, 1989-1991
- Staff Scientist II, Lawrence Berkeley Laboratory, University of California, Berkeley, 1987-1989
- Assistant Research Toxicologist, Sanitary Engineering and Environmental Health Research Laboratory, University of California, Berkeley, 1979-1986
- NIH Postdoctoral Fellow in Environmental Toxicology, Department of Agronomy, Cornell University, 1978-1979
- Postdoctoral Associate in Microbiology, Dept. of Agronomy, Cornell University, 1976-1977